

DECLASS REVIEW by NIMA/DOD

REPORT NO. 35 CIA/PIR 75110

DATE APRIL 1967

Excluded from automatic downgrading and declassification

SECRET

## Approved For Release 2003/03/28-RDP78T05161A001300010032-0

25X1

DDI IMAGERY ANALYSIS STAFF

PIR 75110

#### PREFACE

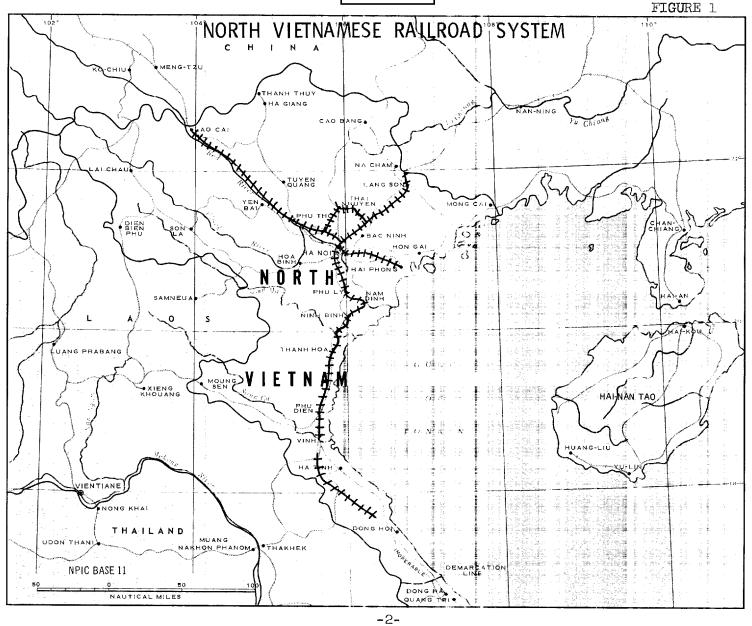
This report summarizes significant items of photo intelligence relating to the North Vietnamese railroad system which has been developed from available photography (received by the CIA Imagery Analysis Staff) during the period indicated on the cover. This report is intended to provide a comprehensive view of the railroad system and does not necessarily reflect the most recent status changes as reported by pilots' reports or field photo intelligence cables.

The railroad system has been divided into 5 major lines: the Hanoi/Lao Cai Line, the Hanoi/Dong Dang Line, the Hanoi/Haiphong Line, the Hanoi/Dong Hoi Line and the Thai Nguyen Line (Figure I). Annotated maps and photos are used to show the status of each line.

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### Approved For Release 2003/0<u>3/28ECBTA-RD</u>P78T05161A001300010032-0

PIR 75110**25X1** FIGURE 1

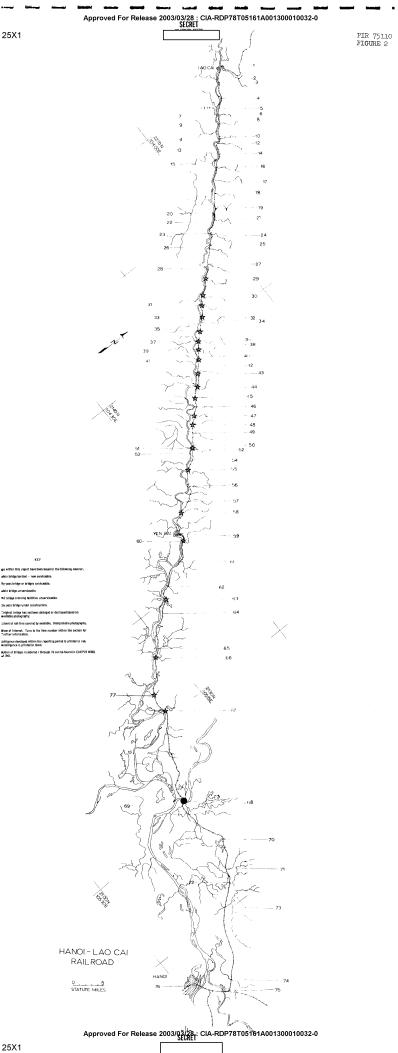


### SUMMARY

That portion of the Hanoi/Haiphong Rail Line covered by interpretable photography was open to through traffic. Three bridge interdictions were noted on the Hanoi/Dong Hoi Rail Line, and a new by-pass/transloading track has been built around the destroyed Thanh Hoa Railroad Yard.

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| Hanoi/Lao Cai Rail Line   | Page 4 |
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| Hanoi/Dong Dang Rail Line | 6      |
| Hanoi/Dong Hoi Rail Line  | 8      |
| Hanoi/Haiphong Rail Line  | 19     |
| Thai Nguyen Rail Line     | 20     |



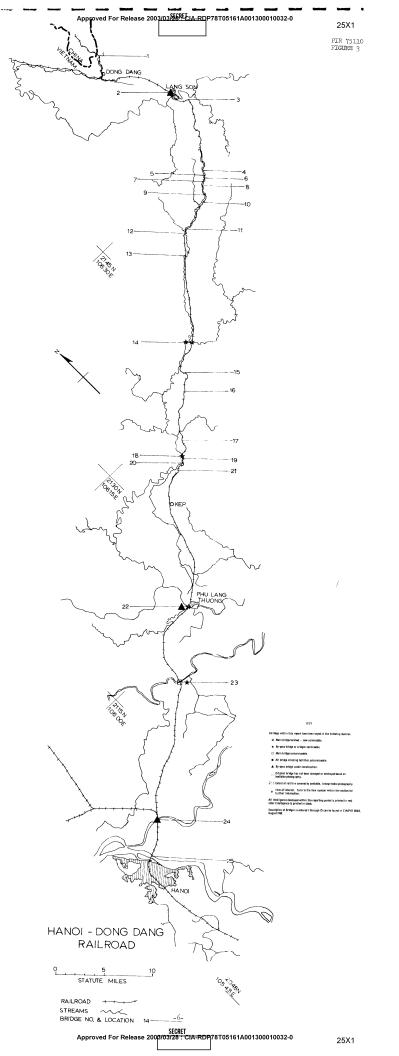
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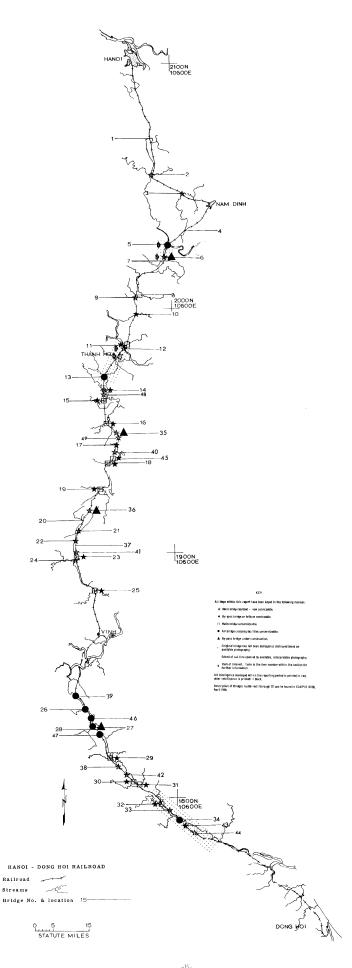
# STATUS OF PREVIOUSLY DAMAGED/DESTROYED BRIDGES HANOI/LAO CAI RAIL LINE

| نهة ا        |      | Bridge Number and Name  | Date last observed         | Status         |      |
|--------------|------|---|----------------------------|----------------|------|
| 25X <b>≠</b> | 30   | Lang Thip Railroad Bridge over<br>Ngoi Thip                                 |                            | S              | 25X1 |
| 25X1         | 32   | Lang Kay Railroad Bridge NW over<br>Ngoi Key (                              |                            | S              |      |
| 25X <u>1</u> | 35   | Lang Kay Railroad Bridge over Ngoi<br>Chuc                                  |                            | S              |      |
| 25X1         | 37   | Lang Kay Railroad Bridge S over<br>Nam Linh                                 |                            | S              |      |
| 25X <u>1</u> | 39   | Lang Khay Railroad Bridge over<br>Ngoi Kay                                  |                            | S              |      |
| 25X1         | 41   | Khe Se <u>Railroad Bridge</u> S over stream                                 |                            | S              |      |
| 25X1         | 43   | Trai Hut Railroad Bridge NW over  |                            | S              |      |
| 25X1         | 2424 | Trai Hut Railroad Bridge over   |                            | S              |      |
| 25X <b>T</b> | 45   | Som Dong Dep Railroad Bridge over   |                            | S              |      |
| 25X <b>₩</b> | 47   | Lang Quach Ngoai Railroad Bridge N<br>over Ngoi Vai                         |                            | S              |      |
| 25X1.        | 48   | Lang Quach Ngoai Railroad Bridge<br>over Ngoi Quach                         |                            | S              |      |
| <br>25X1,    | 51   | Pho Chang Railroad Bridge over  |                            | S              |      |
| 25X1         | 55   | Pho Hop Railroad Bridge over  |                            | S              |      |
| 25X1         | 67   | Phu Tho Railroad Bridge E over  |                            | S              |      |
|              |      | All data is compiled from photography Symbols: S - serviceable, U - unservi |                            | or thereafter. | 25X1 |
| !            |      | Approved For Release 2003/03% (CRE)   | -<br>آ-RDP78T05161A0013000 | 10032-0        |      |
| tas          |      | ,   |                            |                | 25X1 |



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| i i i i i i i i i i i i i i i i i i i |    | STATUS OF PREVIOUSLY DA<br>HANOI/DONG DA                              | MAGED/DESTROYED BRIDGES<br>NG RAIL LINE |                |      |
| <b>****</b>                           |    | Bridge Number and Name  | Date last observed                      | Status         |      |
| 25X1                                  | 14 | Cao Nung Railroad Bridge over<br>Song Hoa                             |   | S              | 25X1 |
| 25X <b>1</b>                          | 14 | Cao Nung Railroad Bridge E over<br>Song Hoa                           |   | S              |      |
| 25X4                                  | 22 | Bac Giang Railroad and Highway<br>over Song Thuong                    | Bridge                                  | S              |      |
| 25X1                                  | 23 | Dap Cau Railroad and Highway Br<br>over Song Cau                      | idge                                    | U              |      |
| 25X1                                  | 23 | Dap Cau R <u>ailroad Bridge o</u> ver<br>Song Cau                     |   | S              |      |
| 'esi                                  |    |   |   |                | ,    |
| Las                                   |    |   |   |                | ·    |
| 461                                   |    |   |   | · ·            |      |
|                                       |    | ll data is compiled from photogra<br>ymbols: S - serviceable, U - uns |   | or thereafter. | 25X1 |

PIR 75110 FIGURE 4



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## STATUS OF PREVIOUSLY DAMAGED/DESTROYED BRIDGES HANOI/DONG HOI RAIL LINE

|              |    | Bridge Number and Name  | Date last observed | Status |      |
|--------------|----|---|--------------------|--------|------|
| 25X <b>T</b> | 3  | Cao Duong Railroad and Highway Bridge                         | 9                  | S      | 25X1 |
| 25X1         | 5  | Ninh Binh Railroad and Highway Bridge<br>over Song Day        | 9                  | Ū      |      |
| 25X <u>1</u> | 5  | Ninh Binh Railroad Bridge over<br>Song Day                    |                    | U      |      |
|              | 5  | Ninh Binh Railroad Pontoon Bridge                             |                    | ΰ      |      |
| 25X1         | 6  | Ha Thon Railroad and Highway Bridge over Song Vac             |                    | S      |      |
| 25X1         | 7  | Ly Nhan Railroad and Highway Bridge over stream               |                    | S      |      |
| 25XT         | 9  | Yen Xa Railroad and Highway Bridge over stream                |                    | S .    |      |
| 25X          | 10 | Dong Phong Thuong Railroad and Highwa<br>Bridge over Song Len | у                  | U      |      |
| 25X1         | 10 | Dong Phong Thuong Railroad Bridge Sover Song Len              |                    | Ŭ      | :    |
| 25X1         | 10 | Dong Phong Thuong E Railroad By-Pass<br>Bridge                |                    | S      |      |
| _<br>25X1    | 11 | Phuong Dinh Railroad and Highway Brid<br>over Lach Truong     | ge                 | U      |      |
| 25X1         | 11 | Phuong Dinh Railroad Bridge over<br>Lach Truong               |                    | S      |      |
| 25X1         | 12 | Thanh Hoa Railroad and Highway Bridge over Song Ma            |                    | S      |      |
| 25X1         | 13 | Thien Linh Dong Railroad Bridge over Hoang Giang              |                    | U      |      |

|      |     | Approved For Release 2003/03/SECREATE                 | RDP78T05161A001300010 | 0032-0  | 25X   |
|------|-----|---|-----------------------|---------|---|
|      |     | ∂DI IMAGERY ANALYS                                    | IS STAFF PI           | R 75110 | 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1           |
|      |     | Bridge Number and Name                                | Date last observed    | Status  | •   |
| 25X1 | 1_3 | Thien Linh Dong Railroad Bridge SW over River         |                       | S       | 25X   |
| 25X1 | 24  | Thinh Lac Railroad Bridge over                        |                       | U       | .54   |
| 25X1 | 14  | Thinh Lac Railroad Bridge SSW over                    |                       | S       | · · · · · · · · · · · · · · · · · · ·             |
| 25X1 | 15  | Truong Quang Tien Railroad Bridge over Song Yen Tr    |                       | S       |   |
| 25X1 | 15  | Truong Quang Tien Railroad Bridge E                   |                       | U       |   |
| 25X1 | 1.6 | Thi Long Railroad Bridge over Suoi Cay Gang           |                       | U       | / <del>////////////////////////////////////</del> |
| 25X1 | 16  | Thi Long Railroad Bridge SW over Suoi Cay Gang        |                       | S       |   |
| 25X1 | L7  | Phu Quat Railroad Bridge over stream                  |                       | S       |   |
| 25X1 | 18  | Dia Thuy Railroad Bridge SW over<br>Khe Dua           |                       | U       |   |
| 25X1 | 18  | Dia Thuy Railroad Bridge NW over<br>Khe Dua (         |                       | S       | •   |
| 25X1 | 19  | Qui Vinh Railroad Bridge No. 1 over<br>Song Hoang Mai |                       | U       | ***   |
| 25X1 | 19  | Qui Vinh Railroad Bridge No. 2 over                   |                       | S       |   |
| 25X1 | 19  | Qui Vinh Railroad Bridge No. 3 over                   |                       | U       |   |
| 25X1 | 19  | Qui Vinh Railroad Bridge No. 4 over                   |                       | S       |   |
| 25X1 | 2]  | Long Ngoc Railroad and Highway Bridg                  | re                    | S       | 2 A A A A A A A A A A A A A A A A A A A           |

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| i<br>Fi              |      |   |                  |            |      |
| ***                  |      | Bridge Number and Name                                      | Date last obser  | ved Status |      |
| 25X1<br>25X <u>1</u> | 22   | Dong Khe Railroad Bridge over stream                        |                  | S          | 25X1 |
| 25X1                 | . 23 | Dien Chau Railroad Bridge over<br>Song Bang                 |                  | Ŭ          |      |
| 25X1                 | 23   | Dien Chau Railroad Bridge E over<br>Song Bang               |                  | S          |      |
| 25X1                 | 24   | Da Phuc Railroad Bridge over Intermit<br>Waterway           | tent             | S          |      |
| 25X1                 | 25   | Tam Da Railroad and Highway Bridge over Song Cua Lo         |                  | Ŭ          |      |
|                      | 25   | Tam Da Railroad By-Pass Bridge                              |                  | Ŭ          |      |
| 25X1                 | 26   | Trai Hoi Railroad and Highway Bridge over Ngan Sau          |                  | υ          |      |
| 25X1                 | 27   | Xom Hoai Railroad and Highway Bridge over Rao No            |                  | Ŭ          |      |
| 25X1                 | 30   | La Khe Thon Railroad Bridge over<br>Song Tien               |                  | Ŭ          |      |
| 25X1                 | 30   | La Khe Thon Highway Bridge over<br>Song Tien                |                  | S          |      |
| 25X1                 | 31   | Bai Duc Thon Railroad Bridge over<br>Khe Ba Giang           |                  | . U        |      |
| 25X1                 | 31   | Bai Duc Thon Railroad Bridge S over<br>Khe Ba Giang         |                  | S          |      |
| 25X1                 | 32   | Xom Khe Railroad Bridge over<br>Khe Net                     |                  | Ŭ          |      |
| <b>(11)</b>          | 32   | Xom Khe Railroad Bridge By-Pass<br>over Khe Net             |                  | S          |      |
| 25X <b>≠</b>         | 33   | Kim Lu Xa <u>Railroad Bridg</u> e ov <b>e</b> r<br>Khe Danh |                  | S          |      |
| 25X1.                | 35   | Thi Long Railroad Bridge SE over stream (                   |                  | ន          |      |

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|    | L   |                   | PIR 75110      |
|----|---|-------------------|----------------|
|    | DDI IMAGERY ANALY   | SISSTAFF          |                |
|    | Bridge Number and Name  | Date last observe | ed Status      |
| 35 | Thi Long Railroad Bridge S By-Pass  |                   | S              |
| 36 | Tho Trang Railroad Bridge over stream   |                   | s              |
| 39 | Quang Te Railroad Bridge over<br>Khe Hac Giang                                      |                   | U              |
| 40 | Qui My <u>Railroad Bridge</u> over stream   |                   | S              |
| 41 | Tu My Railroad Bridge   |                   | S              |
| 42 | Trai Tran Xom Railroad Bridge   |                   | S              |
| 43 | Dong Ca Thon Railroad and Highway<br>Bridge over Cai Khe                            |                   | S              |
| 44 | Kieu Moc Phuong Railroad Bridge W   |                   | S              |
| 45 | Phu Cu Railroad Bridge N over stream  |                   | U              |
| 45 | Phu Cu Railroad By-Pass Bridge  |                   | S              |
| 48 | Sai Thon Railroad Bridge N over stream  |                   | S              |
| 49 | Nap Bang Railroad Bridge over stream  |                   | S              |
|    |   |                   | 25X1           |
|    | all data is compiled from photography disymbols: S - serviceable, U - unserviceable |                   | or thereafter. |

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PIR 75110

ITEM OF INTEREST NO. 1: Hanoi/Dong Hoi Rail Line

NAME

: Ninh Binh RR. Bridge

 $\mathbb{BE}$ 

:

COORDINATES

: 20 15N - 105 59E, XH030405

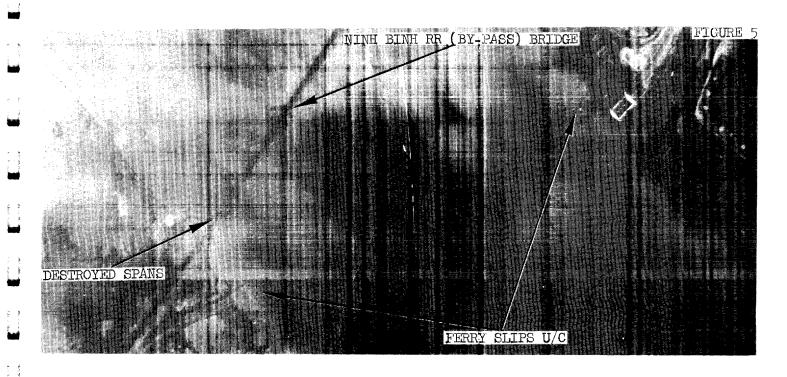
PHOTO REFERENCE

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MAP REFERENCE

: JOG (A) 1501, NF 48-15

Both ends of the 25-span Ninh Binh Railroad (By-Pass) Bridge have been heavily damaged (partially illustrated); approximately 6 spans have been destroyed. Two new railroad ferry slips, one on each side of the river, are under construction immediately to the west of the by-pass bridge. Rail has been laid on one approach, but neither slip has been completed and no rail ferryboat has been observed in the area. Although all of the rail bridges are currently unserviceable, one railroad ferry crossing probably remains serviceable at this river crossing.



|                     |      |                                 |           | 25X1                                  |
|---------------------|------|---------------------------------|-----------|---------------------------------------|
|                     |      | DDI IMAGERY ANALYSIS STAFF      | PIR 75110 | ### 1<br>104 1                        |
|                     |      |                                 |           | ;                                     |
| ITEM OF INTEREST NO | 0.2: | Hanoi/Dong Hoi Rail Line        |           | <b>総数</b> :                           |
| MAME                | :    | Ha Thon Railroad By-Pass Bridge |           |                                       |
| BE                  | :    | TVA                             |           |                                       |
| COORDINATES         | :    | 20 12N - 105 58E, XH013348      |           | · · · · · · · · · · · · · · · · · · · |
| PHOTO REFERENCE     | :    |                                 | ]         | 25X1                                  |
| MAP REFERENCE       | :    | JOG (A) 1501, NF 48-15          |           |                                       |

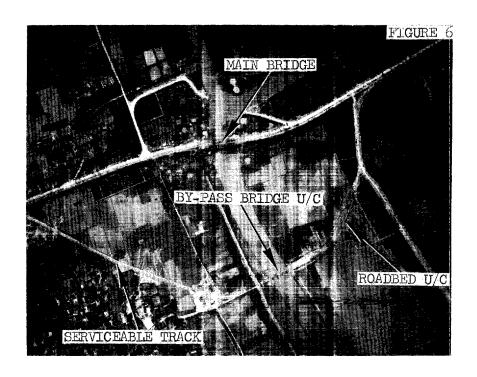
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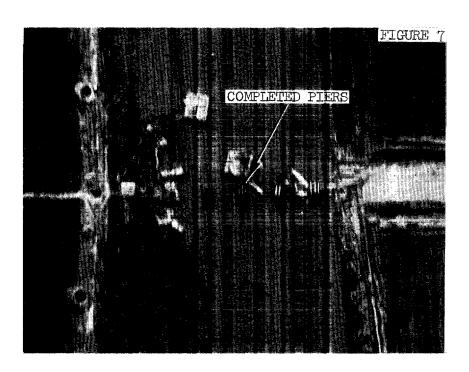
25X1

Construction has begun on a by-pass bridge for the serviceable Ha Thon Railroad Bridge Part of the roadbed has been completed, and track has been laid on this section (Figure 6). The remaining roadbed is under active construction. Four piers have been completed at the new bridge site, but no spans have been erected or observed in the area (Figure 7).

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DDI IMAGERY ANALYSIS STAFF

ITEM OF INTEREST NO. 3: Hanoi/Dong Hoi Rail Line

NAME

: Railroad Ferry

 ${
m BE}$ 

: NA

COORDINATES

: 19 50N - 105 48E, WG835933

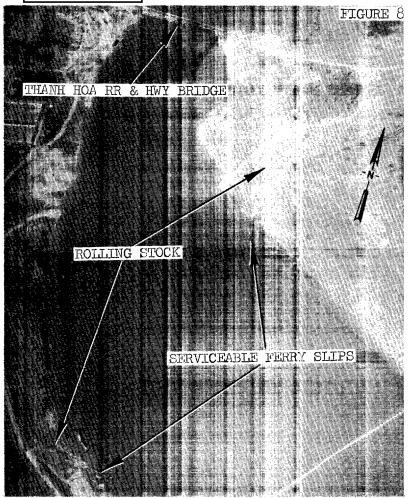
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MAP REFERENCE

: JOG (A) 1501, NE 48-3

Two of the 4 railroad ferry slips previously identified in Report No. 13 have been repaired and appear to be serviceable. However no railroad ferry-boat was observed in the immediate vicinity. The Thanh Hoa Railroad and Highway Bridge remains serviceable.



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| L                    |                | DOLIMAGERY ANALYSIS STAFF                   |
|----------------------|----------------|---|
| THEM OF INTEREST NO. | 4:             | Haroj/Dong Hoi Rail Line                    |
| MAME                 | <b>d</b><br>** | Thanh Hoa Railroad Station, Yard and Siding |
| 88                   | *              |   |
| COORDINATES          | :              | 19 48N - 105 46E                            |
| PHOTO REFERENCE      | :              |   |
| MAP REFERENCE        | :              | JOG (A) 1501, NE 48-3                       |

25X1

cratered Thanh Hoa Railroad Station, Yard and Siding
This track leaves the main line at UTM WG812914, passes to the east of the
yards through the city of Thanh Hoa, and rejoins the main line at UTM
WG807898. A section of this by-pass route is double tracked for a distance
of approximately 1050. Large amounts of supplies on both sides of the
track together with the presence of approximately 20 small 2-axle flat
cars within the area of double tracking indicate that this new by-pass
track is a new transloading facility replacing the damaged Thanh Hoa Yard
(see Report No. 29). Although the yard itself is heavily cratered and
unserviceable to through traffic, there is at least one serviceable track
at the southern end of the yard. Thirteen 2-axle flat cars carrying rails
are located on the main line between the yard and the southern junction
with the by-pass route, indicating that the southern section of the main
yard may still be in use.

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| ITEM OF INTEREST NO. | 4: | Hanoi/Dong Hoi Rail Line                    |
|----------------------|----|---|
| NAME                 | :  | Thanh Hoa Railroad Statior, Yard and Siding |
| BE                   | :  |   |

: 19 48N - 105 46E

PHOTO REFERENCE :

COORDINATES

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MAP REFERENCE : JOG (A) 1501, NE 48-3

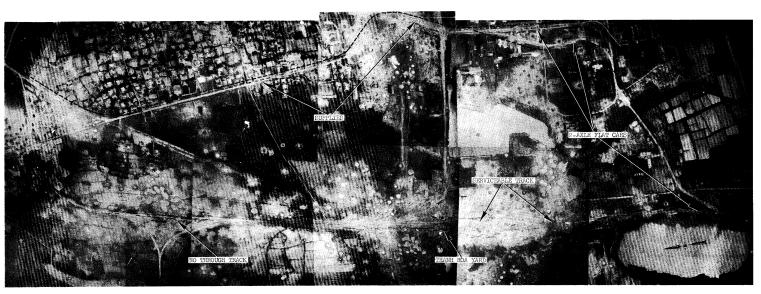
A new serviceable by-pass track has been built around the heavily cratered Thanh Hoa Railroad Station, Yard and Siding

This track leaves the main line at UTM WG812914, passes to the east of the yards through the city of Thanh Hoa, and rejoins the main line at UTM WG807898. A section of this by-pass route is double tracked for a distance of approximately 1050'. Large amounts of supplies on both sides of the track together with the presence of approximately 20 small 2-axle flat cars within the area of double tracking indicate that this new by-pass track is a new transloading facility replacing the damaged Thanh Hoa Yard (see Report No. 29). Although the yard itself is heavily cratered and unserviceable to through traffic, there is at least one serviceable track at the southern end of the yard. Thirteen 2-axle flat cars carrying rails are located on the main line between the yard and the southern junction with the by-pass route, indicating that the southern section of the main yard may still be in use.

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CIA IMAGERY ANALYSIS DIVISION

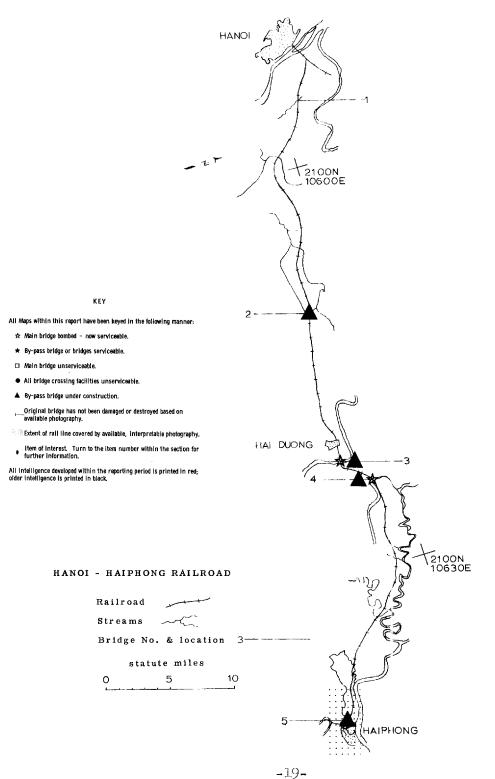
PIR 75110 FIGURE 9



---- NEW BY-PASS ALIGNMENT

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PIR 75110 FIGURE 10

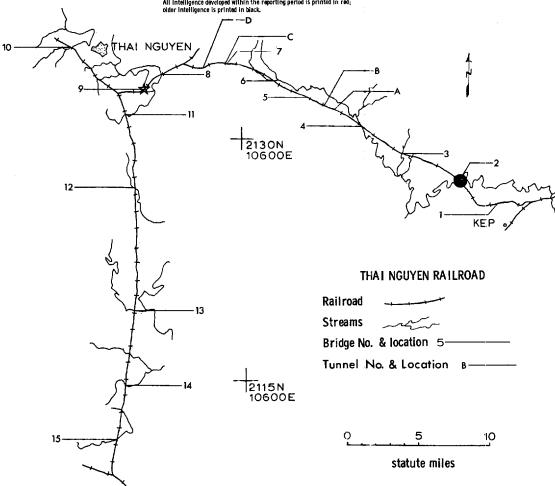


KEY

All Maps within this report have been keyed in the following manner:

- ★ Main bridge bombed now serviceable.
- ★ By-pass bridge or bridges serviceable.
- Main bridge unserviceable.
- All bridge crossing facilities unserviceable.
- ▲ By-pass bridge under construction.
- Original bridge has not been damaged or destroyed based on available photography.
- Extent of rail line covered by available, interpretable photography.
- $\buildrel \bullet$  . Item of Interest. Turn to the Item number within the section for further Information,

All Intelligence developed within the reporting period is printed in red; older intelligence is printed in black.



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|      |   | DDI IMAGERY A   | ANALYSIS STAFF                     | PIR 75110     |      |
|      |   | STATUS OF PREVIOUSLY DA<br>THAI NGUYE                                     | AMAGED/DESTROYED BF<br>N RAIL LINE | IDGES         |      |
|      |   | Bridge Number and Name  | Date last ob                       | served Status |      |
| 25X1 | 2 | Dong Muc Rai <u>lroad Bridge over</u><br>Song Thuong                      |                                    | U             | 25X1 |
| 25X1 | 9 | Lang Lau Railroad Bridge over<br>Song Cau                                 |                                    | S             |      |
|      |   |   |                                    |               |      |
|      |   |   |                                    |               |      |
|      |   |   |                                    |               |      |
|      |   |   |                                    | 25X1          |      |
|      |   | All data is compiled from photograp<br>Symbols: S - serviceable, U - unse |                                    | or thereaf    | ter. |

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